



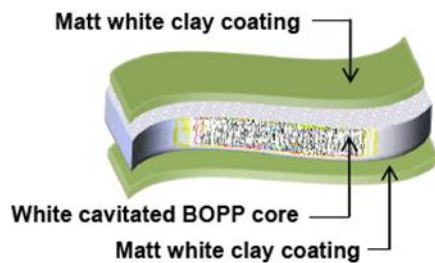
## FAQ & Printing Guidelines

8/19/25

Nekoosa PP Synthetic is a polypropylene-based synthetic paper engineered for durability and resilience in demanding applications. It is waterproof, tear-resistant, and withstands exposure to chemicals, humidity, and sunlight. Its flexibility makes it ideal for folded or scored applications such as menus, table tents, and tags. Nekoosa PP Synthetic is available in two distinct grades, digital and offset, in thicknesses of 8, 10, 12, and 14 mil.

### Film Composition

Nekoosa PP Synthetic features a multi-layer construction designed for optimal stiffness, durability, and opacity. Each side of the sheet is coated to enhance print performance, and the white cavitated core is engineered for added rigidity. The core itself is built as follows.



### Standard Sizes

- **Nekoosa PP Synthetic Digital** - 12"x18" and 13"x19" (full cartons and retail packs)
- **Nekoosa PP Synthetic Offset** - 28"x40" (skid packed)
- **Custom Sizes** - Custom sheet or roll sizes are available upon request. Minimum order quantities and extended lead times may apply.

## Print Compatibility & Best Practices

### Printer Compatibility

- **Nekoosa PP Synthetic Digital** - Compatible with dry toner/laser printers and certified for HP Indigo.
- **Nekoosa PP Synthetic Offset** - Compatible with conventional and UV offset presses. Consider printing UV for the best results and instant drying.
- *\*Nekoosa PP Synthetic is **not compatible with wide format printers**, including eco-solvent, latex, or UV inkjet.*

### Pre-Printing

- **Acclimation** - Allow the sheets to acclimate in the press room for 24 hours prior to printing.
- **Sheet Handling** - Fan the sheets before loading them into the printer to reduce static.
- **Humidity** - Maintain a press room humidity level of 45%-55% to help mitigate static buildup.

### Digital Printing Guidelines

- **Curling** - If you are experiencing feeding issues due to the sheets curling, consider adjusting your caliper settings and fuser temperature.

- **Caliper Settings** - Adjust the caliper or media thickness setting based on the mil weight of the sheet. Failure to do so can lead to misfeeds or paper jams, toner adhesion issues, and curl.
- **Fuser Temperature** - Polypropylene does not tolerate the same high temperatures as polyester-based synthetics; therefore, it's important to calibrate the fuser temperature.
  - At 248°F (120°C), the material will begin to shrink, which can result in distortion, such as wrinkling, curling, or bubbling. This material will begin to melt between 302°F and 388°F (165°C and 170°C).
  - If the sheet itself begins to bubble or distort, lower the fuser temperature accordingly.
  - If you notice bubbling in the toner, increase the fuser temperature slightly.
- **Static Remediation** –
  - Place sheets on a grounded metal table prior to loading.
  - If your press setup allows, consider installing static ionization units or tinsel to help reduce static buildup during printing.
  - If the printer's feed tray has a metal bottom, line it with chipboard to minimize static transfer.

### **Offset Printing Guidelines**

- **UV Offset** – For optimal performance, UV offset printing is recommended, especially for prints with heavy ink coverage requiring instant drying.
- **Traditional Offset** -
  - Add 1.5% MGA 10ML5002 ink drier agent to accelerate drying times. Results can vary based on dosage accuracy.
  - All 24 hours per side for the sheets to fully dry.
  - For applications with heavy ink coverage, frequent handling, or cleaned with mild detergent, a UV/LED overcoat is recommended to enhance durability and protect the printed surface.
- **In-Line Coating and Overcoats** – An aqueous or UV/LED coating can be applied in-line during the printing process. UV/LED varnish is recommended for instant drying.

### **Converting & Finishing**

Nekoosa PP Synthetic performs well with common finishing operations. Please keep the following guidance in mind.

- **Guillotine Cutting** – Ensure blades are sharp and use the lightest clamp setting possible.
- **Die Cutting & Scoring** – The pliability of this material supports clean folds and creases.
- **Drilling** – Limit stacks to 1" to avoid melting due to heat buildup.
- **Micro perforation** – In general, thicker substrates require a lower tooth count micro perf. For instance, we have found that our 10 mil PP performs well with a 32-tooth micro perforation. Our 8 mil may perform best with a 50-tooth micro perforation, whereas the 12 and 14 mil options may work better with a 17-tooth micro perf. As always, because perfin equipment and desired tear characteristics can vary, we strongly recommend testing prior to beginning full production.
- **Binding** – Both spiral and stitching are acceptable binding methods. We recommend testing each method before completing the full production run.
- **Foil Stamping & Embossing** – Embossing is possible; however, maintaining a stable embossed pattern requires some expertise. For the best results, we recommend using heated cylinders for both embossing and foil stamping. As always, testing is strongly encouraged before proceeding with the full production run.
- **Laminating** – Although lamination is not required, as Nekoosa PP Synthetic is naturally durable, tear-resistant, and waterproof, it can be done if desired.

### **Storage & Shelf Life**

Nekoosa PP Synthetic can be used for up to 2 years when stored properly. Keep the product in its original packaging, store it flat in a controlled climate, and avoid storing it in extremely hot or humid environments.

## Applications

Synthetic papers are used for any printed application that requires extra durability. They are also a great alternative to lamination. Where Nekoosa PP Synthetic stands out is its ability to fold and flex to create applications like folded and scored menus, table tents, and flexible tags.

- **Outdoor Applications** – Suitable for outdoor applications for up to 12 months.
- **Cleaning** – Clean with mild kitchen detergent or hand soap diluted with water or products with low alcohol content (<40%). Avoid microfiber cloths as they may damage the printed areas. It is not recommended to use alcohol-based disinfectants unless the printed surface is protected with UV/LED varnish or overcoat.
- **Dry Ice** – Nekoosa PP Synthetic can be used in an environment of -4°F (-20°C), which is the lowest temperature we have currently tested. If the material is immersed in liquid nitrogen at -320°F (-196°C) it will harden, but there will be no brittle fracture or breakage.

## Sustainability & Safety

Nekoosa PP Synthetic is a non-PVC, polypropylene-based plastic that does not emit VOCs. It is eco-friendly, as it helps preserve the environment and reduce deforestation by reducing the consumption of natural resources such as trees.

- **Material Type** – Polypropylene (plastic identification code #5)
- **Sustainability Features** – Non-PVC, no VOC emissions, BPA-free, PCB-free
- **Recyclability** – Recyclable where facilities exist or can be used in waste-to-energy systems to generate heat or electricity.
- **Fire Retardancy** – The mineral-based coating on the sheet's surface acts as an inorganic fire retardant. Therefore, it is combustible but not easily ignited.
- **Food Safety** – Approved by the FDA for indirect food contact.